

tomidæ. All other determinations are by me, except as noted. My good friend Mr. W. T. Davis, has been of great assistance by permitting me to take the records from his local collection, which is certainly a very full one and contains many of the insects noted further on from unusual localities.

The families Lygæidæ, Capsidæ,* Acanthiidæ, Tingitidæ, Reduviidæ and Corixidæ are omitted, either by reason of scant material, or because, as in the Corixidæ, there exists a great specific confusion. Those enumerated are taken in order, according to the more commonly accepted classifications, commencing with the highest and ending with the lowest. Such changes in nomenclature as are made will be explained where they occur.

(To be continued.)

Class III, ARACHNIDA.

Order III, PHALANGIDEA.

NOTES ON SOME PHALANGIDS COLLECTED NEAR ITHACA, N. Y.

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The two following new species of Phalangids I place in the genus *Caddo* Banks although they differ from *C. agilis* Banks, its type, in characters which Banks considered generic. Both species have the abdomen more distinctly segmented above and *C. glaucopsis* has only two spines on the base of the femur of the palpus.

***Caddo glaucopsis*, new species.** (Fig. 4.)

Female. — Length, 4 mm.; height of abdomen, 1.6 mm.; width of abdomen, 1.2 mm.

Tergal portion of body dark reddish-brown marked with silvery white, the sternal portion silvery white, tinged with yellow.

Eye tubercle wide and deeply hollowed between the eyes; a black ring around each eye surrounded by light yellowish gray; the rest of the tubercle brownish yellow except a median stripe and the whole anterior face which are silvery.

*A list of the Capsids has been prepared by Mr. Heidemann and immediately follows this paper.

The lateral and anterior border of the cephalothorax edged with silver except where interrupted in front by a narrow median reddish brown stripe. Dorsum of cephalothorax behind the eye tubercle marked by two transverse sutures thus giving three distinguishable segments of which the posterior is broad and the one preceding it very narrow. The dorsum of abdomen consists of nine segments including the pygidium; the ventral side, consists of seven segments including the hypopygidium; the sixth segment is nearly as wide as the fifth.

The silvery white dorsal marking consists of a median stripe broken into spots on the last three segments. On the dorsal aspect the borders of the segments are marked by transverse bands of silvery white, enlarged laterally, and thus forming a latero-dorsal row of spots. On the lateral aspect, between this row of spots and the edge of the tergum, the ground color is broken by many obscure yellowish brown spots; edge of tergum with a narrow border of the same color. There are two short erect spines on the anterior part of the first abdominal tergite. Each ventral

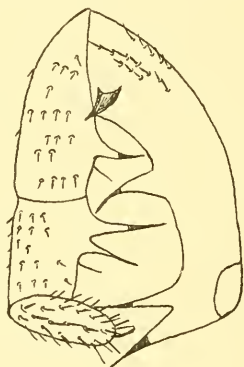


FIG. 4.

segment of the abdomen except the first armed with a single series of short black spines; the first segment with many similar spines not arranged in series; each coxa with a series of spines on the ventral surface.

Ovipositor banded with light brown, the bands divided into half rings by a longitudinal white line on each side. Each band has a single row of black hairs borne on little white tubercles; the branched portion darker with white tips and with the hairs longer; sheath of the ovipositor with granulations in rows crossing each other at an oblique angle.

Chelicerae light with a silvery reflection, darker above and on base of second segment; claws nearly black; three small spines near the end of first segment above and a few on distal end of second segment.

Palpus light, darker above, trochanter with scattered stiff hairs below and a few above, three long black-tipped spines on basal part of femur, two hairs near base of first spine and one between second and third, a few stiff hairs on dorsal side; the tip has a projection on the inside covered by a number of strong setae. Patella, tibia and tarsus clothed on the inside with strong setae, the outer surface also sparingly clothed with weaker setae which become stronger on the tarsus.

The following table gives in millimeters the length of the segments of the legs and palpus. The figures in parentheses give the number of false joints.

Legs.	I.	II.	IV.	Palpus.
Fem.	1.34	1.91	1.44	.4
Pat.	.38	.41	.41	.4
Tib.	1.7	2.4	2.18	.4
Met.	2.52 (4)	2.86 (6 or 5)	4 (7)	
Tar.	3.46 (18)	4.3 (24)	5.23 (24)	.6

This species differs from *C. agilis* Banks in the more angular outline of the eye tubercle, in the greater depth of the median furrow and in the proportion of the segments of the palpus, the femur, patella and tibia being about equal in length. It is also larger and the color markings do not agree with the description of that species.

One specimen was taken after a heavy rain on a tree trunk on a heavily wooded bank near Ithaca, N. Y., August, 1903.

Caddo toöpis, new species.

Female. — Length, 1 mm.; width of abdomen, .6 mm.; width of eye tubercle .48 mm.

Dorsum of body reddish brown crossed by narrow light lines broken into spots near the edge; underside grayish brown. Eye tubercle very large and provided with a broad furrow, dull yellow in the furrow and in front. Each eye with a broad, black ring surrounded by yellowish.

On the tergum two segments are visible on the cephalothorax and eight besides the pygidium on the abdomen; the ventral surface of the abdomen consists of seven segments including the hypopygidium.

Chelicere whitish except the claws which are black. Legs and palpus dark gray. Trochanter of palpus armed beneath with a large tubercle bearing two spines, one large and one small; two large spine-bearing tubercles at base of femur, one at middle of the ventral side and near the tip on the inside; one on the proximal half of the patella and two on the tibia below. The outer side of the whole palpus nearly naked, while the inner side is thickly clothed with strong hairs becoming more dense on the tarsus. The tarsus is directed obliquely mesad. Ovipositor short, armed with three transverse rows of setae before the fork; each branch black at tip and armed with many black setae and one large five-branched spine.

Legs	I.	II.	III.	IV.	Palpus.
Fem.	.43	.67	.55	.84	.41
Pat.	.14	.17	.14	.19	.24
Tib.	.36	.53	.38	.5	.14
Met.	.46	.55	.53	.86
Tar.	.55 (6)	.77 (6)	.67 (6)	.91 (7)	.17

Two specimens taken in sifting leaves on a heavily wooded bank near Ithaca, N. Y., August, 1904.

Leiobunum calcar Wood.

Female.—Length, 7.4 mm. ; width, 4 mm.

Dorsum mottled yellow and brown with the brown central marking distinct in front and darker in spots along the edge. Back of the eye tubercle the marking covers about one half the width of the cephalothorax. It narrows to the second abdominal segment, and then gradually expands posteriorly at the same time becoming more indistinct. Abdomen marked beneath with gray brown transverse bands separated by bands of light gray. Coxæ darker than in the male; legs lighter. Chelicerae uniform grayish yellow except the tips of the claws, which are black.

Trochanter of palpus brownish yellow, patella and tibia darker, tarsus much lighter; femur armed below with a row of short tubercles, slightly more distinct at the place corresponding to that occupied by the process in the male. Patella enlarged distally on the inside and thickly clothed with fine stiff hairs; dorsal and lateral surface armed with scattered blunt tubercles. Tibia armed below with a row of blunt tubercles. Tarsus without tubercles, but clothed with fine white appressed hairs and black erect setæ.

Wood (Comm. Essex Inst., VI, p. 27) described a female Phalangid which he doubtfully considered the female of this species. Weed (Am. Nat., XXI, p. 935; Bull. Ill. St. Lab. Nat. Hist., III, p. 90; Proc. U. S. Nat. Mus., XVI, p. 554) has expressed a doubt as to the generic position of this species owing to the presence of a process on the femur of the palpus of the male.

A pair of this species *in coitu* was collected by Prof. J. H. Comstock at Taughannock Falls, N. Y., August 21, 1902.

I wish to thank Professor Comstock for the privilege of using material in the Cornell University collections and for many valuable suggestions in the preparation of this paper.

PHALANGIDS IN THE DISTRICT OF COLUMBIA.

The following Phalangids have been taken in the vicinity of Washington, D. C. *Scotolemon flavescens* Pack. Under dead leaves. *Caddo agilis* Banks. Among dead leaves, variable in markings, type was immature. *Liobunum nigripalpi* Wood. Uncommon. *Liobunum crassipalpis* Banks. One specimen. *Liobunum vittatum* Say. Abundant. *Liobunum longipes* Weed. In small trees. *Liobunum formosum* Wood. Common. *Liobunum politum* Weed. Common. *Liobunum ventricosum* Wood. Rather common. *Hadrobunus grande* Wood. Not rare.

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